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# **GLAST E/PO Program Status**

## **Science Working Group Meeting 9/18/03**

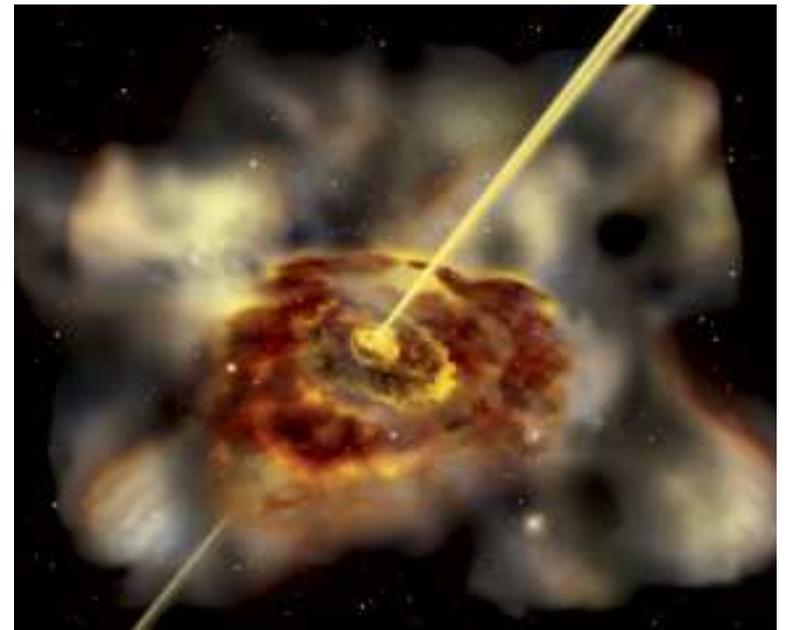
Lynn Cominsky  
Sonoma State University



# E/PO Work Breakdown Structure

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- 1) Management
- 2) EPO program evaluation (WestEd)
- 3) Web based Materials
  - Web Site – continuous upgrade
  - *Space Mysteries (2004-2005)*
- 4) Educator Training
  - Educator Ambassadors Program
  - Conference participation
- 5) Printed materials
  - TOPS Lesson Modules
  - Posters and Activities
- 6) *SLAC Virtual Visitor Center (2004)*
- 7) PBS documentary (Tom Lucas Productions) (2003-2005)
- 8) GLAST Telescope Network





## Educator Training

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- **Workshops and Meetings in 2003 since last SWG**
- **3/27/03** – Phil Plait and EA Daryl Taylor did TOPS workshop at National Science Teachers Association
- **4/11/03** – Lynn Cominsky and EA Mike Ford did TOPS workshop at National Council for Teachers of Mathematics
- **4/11/03** - EA Tim Brennan presented “Where particle physics meets orbiting astronomy: NASA’s GLAST Program” at the AAPT-regional meeting in Williamstown, MA
- **5/5/03** – EA Teena Della presented “The Educator Ambassadors of GLAST” to the B.C. Colleges and Universities Earth Sciences Articulation Meeting, Malaspina University College, Nanaimo, BC
- **5/10/03** – EA Teena Della presented “Creating and Teaching Astronomy” to Learning Online in BC
- **7/12/ 03** – EA Teena Della did a GLAST presentation to K-12 teachers at Simon Fraser University in Burnaby, British Columbia, Canada



## Educator Training

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- **Workshops and Meetings in 2003 since last SWG**
- **5/15 and 5/27/03** – EA Tim Brennan presented “History of Telescopes” to students at Pomfret Elementary School, Pomfret, VT
- **7/20/03** – EA Tim Brennan presented “Where Particle Physics Meets Orbiting Astronomy: NASA’s GLAST Program and the Future of Gamma-Ray Astronomy” at Spaceshop XX held at Tufts University, Medford, MA
- **8/1/03** – EA Tim Brennan presented “Where Particle Physics Meets Orbiting Astronomy: NASA’s GLAST Program and the Future of Gamma-Ray Astronomy” plus “Invisible Light Sources and Detectors in Maine
- **7/29-30/03** – EA Daryl Taylor presented ‘Wal-Mart Fizzix’ and ‘NASA in the Classroom’ to the Bay District Schools, Panama City, FL
- **3/17-21/03** – EA Jason Smith presented “The science behind the GLAST Mission” in 16 Classroom Visits, in Marquette, MI
- **5/1/03** – EA Jason Smith presented “The GLAST Mission and the Technology of Exploration” at Space Day at St Mary's Star of the Sea Catholic School, Carnarvon, WA



## Educator Training

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- **5/26/03** – EA Jason Smith presented “The GLAST Mission & Space Mysteries” at the Alexandria City Schools Professional Development Day, VA
- **4/26/03** – EA Mike Ford presented GLAST teacher workshop at the Kansas Association of Teachers of Science
- **Workshops and Meetings in 2003-4 (submitted)**
  - **10/03** - EA Jason Smith will present The Gamma Ray Universe at the NSTA Eastern Regional in Louisville, Kentucky.
  - **10/03** –Lynn Cominsky and Sarah Silva will present AGN workshop at CSTA in Long Beach, CA
  - **11/03**- EA Mike Ford will present Astronomy with GLAST, and the GLAST Telescope Network (GTN) at NSTA Mid-west Regional in Kansas City
  - **12/03** – Lynn Cominsky and Sarah Silva will present AGN activities at the NSTA Western Regional in Reno, NV



# Exhibit Booth – events since last SWG

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- AAS in Nashville (5/03)
- GRB 2003 in Santa Fe
- CSTA in Long Beach, CA (10/03)



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**GLAST**



## Printed Materials and Curriculum Development

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- **TOPS (Ron Marson)**
  - *Far Out Math* – in print, advertised in recent TOPS IDEAS flyer
  - Draft of second module now in review
- **GLAST AGN Materials**
  - Educator's guide – **NOW AVAILABLE!**
  - 5000 guides and posters printed by GPO
  - **Recommended** for broad distribution with minor revisions by NASA Educational Products Review Process
- **New GLAST spacecraft poster**
  - Printed by Spectrum Astro
  - Same image used on Mini-pad giveaways and in magic cube



## New GLAST Spacecraft poster

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- Designed by Aurore Simonnet



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**GLAST**



## PBS Television Special

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- PBS Television Special (2003-2005)  
(R4, R6)
  - Subcontract with Thomas Lucas now in place
  - Program outline now in development
  - Focus on GRBs and Black Holes
  - 1 – 2 hour program on PBS NOVA
  - 10:1 cost-sharing by NSF, PBS & others vs. GLAST
  - NSF proposal in the works for cost sharing, planetarium shows and educator's guide
  - Will include Swift launch





# GLAST Telescope Network

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- RTS-1 (SSU robotic telescope)
  - Now working at SSU Observatory
  - Flat fielding of CCD in progress, polar aligned
- Subcontract negotiated with California Academy of Sciences to locate RTS-1 at Pepperwood
- Site construction underway,
- Dome on order, due to arrive 10/23
- Expect to move RTS-1 to Pepperwood by November, 2003 (weather permitting)
- **GLAST scientists needed to partner with AAVSO**





## Other activities

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- PBS special NSF proposal submitted – favorably reviewed
- Expect Funding recommendation from NSF due in October
- WestEd has reviewed TOPS, NSTA and NCTM workshops during 2003
- UC Santa Cruz activities continued
- Next poster/activity set will feature supernova remnants, joint with XMM-Newton
- GLAST brochure design continuing – need hardware photos
- Magic cubes should arrive by the end of September, 2003
- Space Mysteries concepts now entering story board phase



## Summary

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- E/PO program functioning smoothly
- Educator Ambassadors in high gear
- Products are being completed and widely distributed – with favorable reviews from NASA